

PTO/SB/01A (10-01)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention METHOD OF MAKING INNERLAYER PANELS AND PRINTED WIRING BOARDS USING X-RAY IDENTIFICATION OF FIDUCIALS

As the below named inventor(s), I/we declare that:

This declaration is directed to:

The attached application, or
 Application No. 10/718044, filed on November 20, 2003,
 as amended on _____ (if applicable);

I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;

I/ we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;

I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT International filing date of the continuation-in-part application.

All statements made herein of my/own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

FULL NAME OF INVENTOR(S)

Inventor one: WILLIAM J. BORLAND

Signature: William Borland Citizen of: US

Inventor two: SAUL FERGUSON

Signature: Saul Ferguson Citizen of: US

Inventor three: DIPTARKA MAJUMDAR

Signature: Diptarka Majumder Citizen of: IN

Inventor four: MATTHEW C. SNOGREN

Signature: _____ Citizen of: US

Additional inventors are being named on 1 additional form(s) attached hereto.

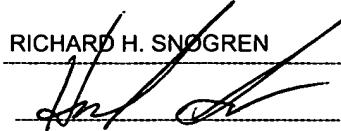
Burden Hour Statement: This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is used by the public to file (and the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 1 minute to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

FULL NAME OF INVENTOR(S)

Inventor five

RICHARD H. SNOGREN

Signature



Citizen of: US

Inventor six

Signature

Citizen of:

Inventor seven

Signature

Citizen of:

Inventor eight

Signature

Citizen of:

Inventor nine

Signature

Citizen of:

Inventor ten

Signature

Citizen of:

Inventor eleven

Signature

Citizen of:

Inventor twelve

Signature

Citizen of:

Inventor thirteen

Signature

Citizen of:

Inventor fourteen

Signature

Citizen of:

Inventor fifteen

Signature

Citizen of:



PTO/SB/01A (10-01)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention METHOD OF MAKING INNERLAYER PANELS AND PRINTED WIRING BOARDS USING X-RAY IDENTIFICATION OF FIDUCIALS

As the below named inventor(s), I/we declare that:

This declaration is directed to:

The attached application, or
 Application No. 10/718044, filed on November 20, 2003,
 as amended on _____ (if applicable);

I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;

I/ we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;

I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT International filing date of the continuation-in-part application.

All statements made herein of my/own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

FULL NAME OF INVENTOR(S)

Inventor one: WILLIAM J. BORLAND

Signature: _____ Citizen of: US

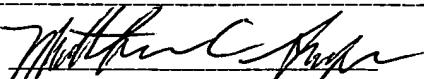
Inventor two: SAUL FERGUSON

Signature: _____ Citizen of: US

Inventor three: DIPTARKA MAJUMDAR

Signature: _____ Citizen of: IN

Inventor four: MATTHEW C. SNOGREN

Signature:  Citizen of: US

Additional inventors are being named on 1 additional form(s) attached hereto.

Burden Hour Statement: This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is used by the public to file (and the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 1 minute to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

FULL NAME OF INVENTOR(S)

Inventor five	RICHARD H. SNOGREN
Signature	Citizen of: US
Inventor six	
Signature	Citizen of:
Inventor seven	
Signature	Citizen of:
Inventor eight	
Signature	Citizen of:
Inventor nine	
Signature	Citizen of:
Inventor ten	
Signature	Citizen of:
Inventor eleven	
Signature	Citizen of:
Inventor twelve	
Signature	Citizen of:
Inventor thirteen	
Signature	Citizen of:
Inventor fourteen	
Signature	Citizen of:
Inventor fifteen	
Signature	Citizen of:



PTO/SB/81 (09-03)

Approved for use through 11/30/2005. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY
and
CORRESPONDENCE ADDRESS
INDICATION FORM**

Application Number	10/718,044		
Filing Date	November 20, 2003		
First Named Inventor	William J. Borland Et. Al.		
Title	METHOD OF MAKING INNERLAYER PANELS AND PRINTED WIRING BOARDS USING X-RAY IDENTIFICATION OF FIDUCIALS		
Art Unit	2841	Examiner Name	
Attorney Docket Number		EL0509USNA	

I hereby appoint:



Practitioners at Customer Number:

23906

OR



Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:



The above-mentioned Customer Number:

OR



The address associated with Customer Number:

OR

<input type="checkbox"/>	Firm or Individual Name	
--------------------------	----------------------------	--

Address

Address

City

State

Zip

Country

Telephone

Fax

I am the:



Applicant/Inventor.



Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record

Name	William J. Borland		
Signature	<i>William Borland</i>		
Date	March 5, 2004	Telephone	(919) 248-5628

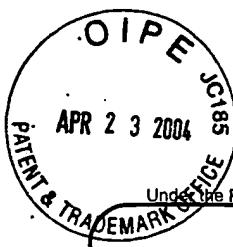
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.



*Total of 5 forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/81 (09-03)

Approved for use through 11/30/2005. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY
and
CORRESPONDENCE ADDRESS
INDICATION FORM**

Application Number	10/718,044		
Filing Date	November 20, 2003		
First Named Inventor	William J. Borland Et. Al.		
Title	METHOD OF MAKING INNERLAYER PANELS AND PRINTED WIRING BOARDS USING X-RAY IDENTIFICATION OF FIDUCIALS		
Art Unit	2841	Examiner Name	
Attorney Docket Number	EL0509USNA		

I hereby appoint:

 Practitioners at Customer Number:

23906

OR

 Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

 The above-mentioned Customer Number:

OR

 The address associated with Customer Number:

OR

<input type="checkbox"/>	Firm or Individual Name			
Address				
Address				
City		State		Zip
Country				
Telephone		Fax		

I am the:

 Applicant/Inventor. Assignee of record of the entire interest. See 37 CFR 3.71.
*Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)***SIGNATURE of Applicant or Assignee of Record**

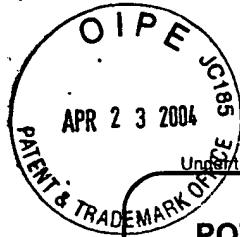
Name	Saul Ferguson		
Signature			
Date	3/8/2004	Telephone	(919) 544-3793

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

 *Total of 5 forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/81 (09-03)

Approved for use through 11/30/2005. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY
and
CORRESPONDENCE ADDRESS
INDICATION FORM**

Application Number	10/718,044		
Filing Date	November 20, 2003		
First Named Inventor	William J. Borland Et. Al.		
Title	METHOD OF MAKING INNERLAYER PANELS AND PRINTED WIRING BOARDS USING X-RAY IDENTIFICATION OF FIDUCIALS		
Art Unit	2841	Examiner Name	
Attorney Docket Number		EL0509USNA	

I hereby appoint:



Practitioners at Customer Number:

23906

OR



Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:



The above-mentioned Customer Number:

OR



The address associated with Customer Number:

OR

<input type="checkbox"/>	Firm or Individual Name			
Address				
Address				
City.		State		Zip
Country				
Telephone		Fax		

I am the:



Applicant/Inventor.



Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record

Name	Diptarka Majumdar		
Signature	<i>Diptarka Majumdar</i>		
Date		Telephone	(919) 363 5479

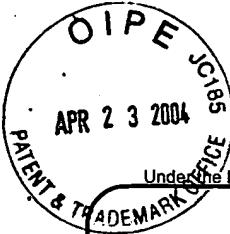
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.



*Total of 5 forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/81 (09-03)

Approved for use through 11/30/2005. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY
and
CORRESPONDENCE ADDRESS
INDICATION FORM**

Application Number	10/718,044
Filing Date	November 20, 2003
First Named Inventor	William J. Borland Et. Al.
Title	METHOD OF MAKING INNERLAYER PANELS AND PRINTED WIRING BOARDS USING X-RAY IDENTIFICATION OF FIDUCIALS
Art Unit	2841
Examiner Name	
Attorney Docket Number	EL0509USNA

I hereby appoint:



Practitioners at Customer Number:

23906

OR



Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:



The above-mentioned Customer Number:

OR



The address associated with Customer Number:

OR

<input type="checkbox"/>	Firm or Individual Name			
Address				
Address				
City		State		Zip
Country				
Telephone		Fax		

I am the:



Applicant/Inventor.



Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record

Name	Matthew Spogren		
Signature			
Date	4-19-2004	Telephone	(303) 898-4862

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.



*Total of 5 forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/81 (09-03)
Approved for use through 11/30/2005. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY
and
CORRESPONDENCE ADDRESS
INDICATION FORM**

Application Number	10/718,044		
Filing Date	November 20, 2003		
First Named Inventor	William J. Borland Et. Al.		
Title	METHOD OF MAKING INNERLAYER PANELS AND PRINTED WIRING BOARDS USING X-RAY IDENTIFICATION OF FIDUCIALS		
Art Unit	2841	Examiner Name	
Attorney Docket Number	EL0509USNA		

I hereby appoint:

Practitioners at Customer Number:

23906

OR

Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

The above-mentioned Customer Number:

OR

The address associated with Customer Number:

OR

Firm or Individual Name

Address

Address

City

State

Zip

Country

Telephone

Fax

I am the:

Applicant/Inventor.

Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record

Name Richard Snogren

Signature

Date

Telephone 416 453 1693

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

*Total of 5 forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.